

Method and Device for Sending Several Downstream Channels Using a Single Up Converter

ABSTRACT

A method and device (100, 200) for combining digital data signals, converting them to analog data signals, and transmitting the analog signals downstream via a single up converter (170, 270). The data transmission method includes generating a plurality of digital signals, digitally combining the digital signals, and converting the combined digital signal to an analog signal. The analog signal is up converted to a transmittable analog signal having a frequency suited for transmission along a particular transmission medium, and the transmittable analog signal is transmitted. The data transmission device (100, 200) includes a digital combiner circuit (180, 182, 282), a D/A converter (150, 152, 250), an up converter (170, 270), and an optional analog combiner circuit (190).